

# **EXHIBIT 6**

May 8, 2003

Arthur-Jean B. Williams, Chief  
Environmental Field Branch, (7506C)  
Office of Prevention, Pesticides and Toxic Substances  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave. N.W.  
Washington, D.C. 20460

Dear Ms. Williams:

This letter acknowledges the National Marine Fisheries Service's (NOAA Fisheries) receipt of two letters dated July 25, 2002, from the U.S. Environmental Protection Agency (EPA) requesting initiation of formal section 7 consultation under the Endangered Species Act (ESA). The actions submitted for consultation are registration of the pesticides propargite, molinate and thiobencarb under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). EPA has requested consultation on the effects of these actions on Pacific salmon in the following 26 salmonid Evolutionarily Significant Units (ESUs): Southern California steelhead, South Central California steelhead, Central California coast steelhead, California Central Valley steelhead, Northern California steelhead, Upper Columbia River steelhead, Snake River steelhead, Upper Willamette River steelhead, Lower Columbia River steelhead, Middle Columbia River steelhead (*Oncorhynchus mykiss*); Sacramento River winter-run chinook, Snake River fall-run chinook, Snake River spring/summer-run chinook, Central Valley spring-run chinook, California Coastal chinook, Puget Sound chinook, Lower Columbia River chinook, Upper Willamette River chinook, Upper Columbia River spring-run chinook (*O. tshawytscha*); Central California coast coho, Southern Oregon/Northern California coast coho, Oregon coast coho (*O. kisutch*); Hood Canal summer-run chum, Columbia River chum (*O. keta*); Ozette Lake sockeye, and Snake River sockeye (*O. nerka*).

NOAA Fisheries has reviewed the initiation packages entitled *Propargite Analysis of Risks to Endangered and Threatened Salmon and Steelhead* (July 23, 2002) and *Effects Determination for Molinate and Thiobencarb for Pacific Anadromous Salmonids* (July 23, 2002). Before initiating formal consultation, NOAA Fisheries requests that EPA supplement its initiation packages with additional information. The information sought is described in Attachment 3 to this letter. Please respond by providing the information requested, or in the alternate, an explanation as to why the information sought is either unavailable or inappropriate. After NOAA Fisheries determines that EPA's initiation packages are complete, formal consultation will begin. We will notify you by letter when formal consultation has commenced, together with an estimate as to when we will complete consultation and provide you with a biological opinion.

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To assist you in supplementing your initiation packages, we are enclosing two additional documents. They are as follows:

- \* Attachment 1 is entitled "National Marine Fisheries Service Consultation Initiation Checklist". This is a generic. The first attachment is a consultation initiation checklist NOAA Fisheries developed to assist Federal agencies in meeting the information requirements necessary to initiate consultation. Other Federal agencies have found this outline valuable for organizing and submitting information. The checklist itemizes the types of information needed requested for all consultations, including the project background/history, description of the action and the action area, status of the species and their critical habitat, environmental baseline in the action area, effects of the action on listed species, cumulative effects, and conclusion. The checklist includes the identification of the type and severity of direct and indirect effects of the action (p. 3, section V).
- \* Attachment 2 is entitled "Pesticides and Pacific salmon: technical guidance for NOAA Fisheries section 7 pesticide consultations" (10/1/02). This document, which has been prepared by NOAA Fisheries, provides internal technical guidance to NOAA Fisheries in conducting section 7 consultations involving the effects of pesticides on listed salmonids and their habitats. The goal of this document is ensure a consistent scientific approach when evaluating the effects of pesticides. It is designed to complement and be consistent with EPA risk assessment guidelines, as reflected in EPA's *Guidelines for Ecological Risk Assessment* (U.S. EPA, 1998). This document should in part assist EPA in understanding how NOAA Fisheries intends to evaluate the potential impacts of pesticides on listed salmonids and their habitats. We would appreciate it if all future consultation requests on pesticide registrations follow this guidance to the extent possible.

Finally, we note that the initiation request letters do not mention consultation under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (§305(b)(2)) and its implementing regulations (50 C.F.R. 600 Subpart K). Federal agencies are required to consult with NOAA Fisheries regarding actions that are authorized, funded, or undertaken by that agency that may adversely affect Essential Fish Habitat (EFH). Please indicate whether EPA intends to consult under the MSA on these registration actions.

Please contact Steven Landino at 360-743-6054 if you have any questions.

Sincerely,

D. Robert Lohn  
Regional Administrator

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enclosures

cc: Michael Horton, USFWS  
Ken Seeley, USFWS  
Maria Borogia, USFWS  
Don Steffeck, USFWS

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bcc: Michael Crouse, HCD  
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**Attachment 3:**  
**General and Specific Comments for Propargite, Molinate, and Thiobencarb Initiation Packages**

**General Comments**

*Action Area*

Please clarify the scope of the action area. Pursuant to 50 C.F.R. 402.14(c)(2), a request for formal consultation shall include, "a description of the specific area that may be affected by the action." Regulations define the "action area" to mean, "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." 50 C.F.R. 402.02. NOAA interprets this definition to be the waters of any state in which the pesticide is registered for use, plus any waters outside of a state in which it has been registered that may be affected by its use because of downstream effects. In discussing the action area, EPA's initiation packages simply refer to the ranges of the 26 ESUs. Given the importance of the describing the action area, please clarify the following:

- \* Please provide greater geographical clarity as to EPA's view of the action area. At the present time, EPA's initiation packages simply refer to the ranges of 26 ESUs.
- \* Please clarify whether EPA is requesting a consultation on all three pesticides within the action area. Specifically, please identify whether you are requesting consultation on molinate and thiobencarb in Washington and Oregon, even though they are not registered for use in these states. Similarly, please indicate whether these three pesticides are registered for use in Idaho, and whether the consultations are intended to cover that area.
- \* It appears that the requests for consultation pertain solely to the effects on salmonids. Please explain your rationale for excluding other listed species that may be within the action area, and how EPA intends to consider the potential effects of pesticides on these other species.

*Quantitative Information*

Much of the initiation package contains general information that is qualitative and narrative. Such information is generally less useful to NOAA Fisheries in attempting to evaluate the effects of pesticides on listed species. Reference was made to documents, including the Reregistration Eligibility Decision (RED) and the Environmental Risk Assessment, which may provide quantitative analyses and support for some conclusions. To the extent they exist, please submit all additional documents that provide quantification or other support for EPA's ESA effects determinations.

*Best available science*

Consultation regulations state that "The Federal agency requesting formal consultation shall provide the Service with the best scientific and commercial data available or which can be obtained during the consultation for an adequate review of the effects that an action may have upon listed species or critical habitat" (50 C.F.R. 402. 14(d)) In the context of pesticide effects, NOAA Fisheries believes that the best available science includes the primary, peer-reviewed scientific literature. It also includes the "grey literature" such as agency technical reports and data submitted to the EPA by pesticide producers during the registration process.

EPA's effect determinations are based on exposure and toxicity information for these chemicals that is contained in the REDs. In evaluating pesticides for reregistration, the EPA evaluates the studies submitted by the pesticide producers as the basis for the Agency's risk assessment. The RED does not necessarily consider the peer-reviewed (or open) scientific literature or other sources of information regarding the potential toxicity of a pesticide to salmonids or other non-target aquatic organisms. Also, the RED does not contain data from studies published after the document was developed.

For a risk determination in the context of the ESA, NOAA Fisheries believes that the RED does not by itself constitute the best available scientific and commercial data. An initiation package/biological assessment must consider the peer-reviewed scientific literature and other relevant sources of technical information. Please clearly indicate all sources of data that were used in EPA's effects determinations.

*Product formulation*

EPA's initiation packages seek consultation on three active ingredients: propargite, molinate, and thiobencarb. In the case of propargite, this includes two formulations: emulsifiable concentrates and wettable powders. For molinate and thiobencarb these include granulated forms, emulsifiable concentrates and liquid sprays. Accordingly, the initiation packages/biological assessments should, to the extent information is available, review the potential toxicity of inert ingredients, adjuvants, surfactants, and degradates in addition to the active ingredient. For example, the effects determination for propargite identifies known degradates (e.g. propargite glycol ether), but it does not specifically evaluate the potential toxicity of these compounds to salmonids and their habitats, or to other aquatic species whose presence or abundance might affect the reproductive success of salmonids. In addition, the determination acknowledges that, at least for some formulations (Omite 57E), ingredients other than propargite contribute to the reported toxicity of the product. However, the source(s) of this additive toxicity are not identified. The label for Omite - 30W states that a surfactant can be added and that the grower should rely on their prior experience or local supplier's recommendation in choosing the product.

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Given these considerations, please supplement the initiation packages by identifying, to the extent possible, all of the chemical ingredients in each formulated product. Additionally, please provide and analyze all available information that examines the toxicity of inert ingredients, adjuvants, and surfactants, when used in combination with all three active ingredients.

### *Multiple effects*

Salmonids are exposed to many stressors other than pesticides. These independent stressors may affect the sensitivity of salmonids to pesticide exposure. Given, this, an action agency must include in the initiation package/biological assessment an analysis of cumulative effects (50 C.F.R. 402.14(c)). The cumulative effects analysis should evaluate the likely effects of future non-Federal activities in the action area that are reasonably certain to occur and that will affect salmonids. This requires, in turn, consideration of baseline environmental conditions in salmonid habitat (current state of relevant habitat conditions such as streamflow, temperature and other physical, chemical and biological attributes).

As applied to these initiation packages, NOAA Fisheries believes that these provisions require an examination of how the pesticides that are the subject of this consultation are likely to interact with other pesticides presently in use. Such examination acknowledges that pesticides may cause additive or synergistic toxicity when they co-occurs with other registered pesticides. As is evident from recent U.S. Geological Survey National Water Quality Assessment (NAWQA) studies in several western basins, pesticides frequently enter salmonid habitat as mixtures. The labels themselves often allow mixing. This raises the possibility of multiple effects attributed solely to pesticide mixtures.

Accordingly, please provide and analyze all available information that addresses potential or known multiple effects on listed salmon or their habitat, that are caused by the interaction of pesticides that are the subject of this consultation with other pesticides that are currently registered and in use. We believe that EPA possesses some information bearing upon the interaction of pesticides, since under the Food Quality Protection Act of 1996, EPA must assess the cumulative effects to human health of pesticides and other chemicals that demonstrate a common mechanism of toxicity.

### *Ecological Risk Assessment problem formulation, assessment endpoints, and risk hypotheses*

A review of the initiation packages suggests that EPA's "endangered species risk assessment" is predicated upon an Environmental Risk Assessment that was completed under the authority of FIFRA, for the purpose of reregistration of the active ingredients at issue. For example, the propargite risk assessment states (p.2) that direct effects result from exposure to a pesticide at levels that may cause harm. While the assessment does not specifically discuss "harm" in the form of assessment endpoints and risk hypotheses, the risk assessment states that "relevant acute data are derived from standardized toxicity tests with lethality as the primary endpoint". This suggests that direct mortality (*i.e.*, fish kills) is the only assessment endpoint that is relevant to the question of "harm."



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In section 7 consultations, NOAA Fisheries also considers "sublethal" effects when assessing potential harm, if these effects have clear significance for the survival, reproductive success, recovery, or migratory success of salmon and steelhead. Given the importance of a common understanding as to assessment endpoints and risk hypotheses, NOAA Fisheries requests that EPA supplement its initiation packages with the following information:

- \* Please clarify how EPA developed the problem formulation and subsequently selected the assessment endpoints used for the "endangered species risk assessment."
- \* Please clarify how EPA considered:
  - listed salmon and steelhead essential biological requirements when developing its "endangered species risk information", and provide the specific assessment endpoints used,
  - sublethal effects to listed species in developing its "endangered species risk assessment", and provide the toxicity endpoints used to assess sublethal effects,
  - effects to designated critical habitat when developing its "endangered species risk assessment", and provide the specific assessment endpoints used.
- \* Please clarify how EPA validated the assumptions in the exposure models employed in the "endangered species risk assessment."
- \* What is the scientific basis for using the "standard endangered species criterion of the Risk Quotient exceeding 0.05"? How was this criterion developed? Please provide support for the assumption that acute mortality ( $LC_{50}$ ) data can be used to predict thresholds for sublethal toxicity in salmon or steelhead.
- \* How was the safety factor of 20 derived? The use of 20 as a safety factor assumes that propargite and other pesticides will not have significant sublethal effects on threatened and endangered species if the exposure concentrations are less than  $1/20^{th}$  of the  $LC_{50}$  for that chemical. If EPA has reviewed the primary scientific literature and can show that pesticides do not have adverse effects on nontarget organisms at concentrations below  $1/20^{th}$  of the  $LC_{50}$ , this would provide the necessary scientific support for using 20 as a safety factor when establishing a level of concern (LOC) for propargite or other pesticides. Please address this issue.

**Specific Comments for Propargite**

1. p. 2, second paragraph. What is the basis (either technically supported or assumed) for the toxicity testing approach that determines if a "pesticide has essentially no acute toxicity at relevant concentrations . . . then chronic fish tests may not be required"?
2. p. 2, second paragraph. How are "essentially no acute toxicity" and "relevant concentrations" defined? Are there numeric concentrations associated with those narrative phrases?
3. p. 2, third paragraph. How are "generous safety margins" and "reasonable safety margins" defined? How were they established? Are there numeric values associated with those narrative phrases?
4. p. 2, third paragraph. This paragraph concludes with the statement that "While our risk assessment criteria are intended to protect populations of non-target species . . . our criteria for endangered and threatened species are intended to protect individuals of these species from not only lethal effects, but also sublethal, reproductive, and chronic effects." What measures were taken to extend the risk assessment criteria from population level protection to individual level protection?
5. p. 3, first paragraph. Have lab or field trials been conducted to support the statement that "In general, pesticides applied in terrestrial environments will not affect the plant material in the water?" Please provide any available support.
6. p. 3, third paragraph. Please describe the review and validation process for the toxicity tests and fate and transport studies and provide the work. There is no distinction drawn in EPA's process between effects in freshwater and those in marine waters. Do pesticides affect the species or habitat differently depending upon the salinity of the water?
7. p. 4, Methods of Application. Propargite is applied in a number of ways. Please provide a complete description of the different application methods, including ,but not limited to, the following: droplet size ranges, when application generally occurs, and any aspects of the different methods that pose environmental risks.
8. p. 4, Aquatic toxicity of propargite. The following statement is unclear: "Tests on most formulated products are consistent with those on the active ingredient, indicating that ingredients other than the active ones, provide no meaningful addition to the toxicity of the active ingredient." What does "meaningful" mean in this context? Have tests been conducted on the other components of the formulation, such as inert ingredients (some of which comprise up to 68% of the product formulation)? If such tests have been conducted, please include them in the discussion of aquatic toxicity and provide supporting data.

9. Tables 1- 3. How are the qualitative terms "very highly toxic, highly toxic, practically not-toxic" defined? Do they equate to numeric values? What are the bases for the toxicity categories? What are the citations for those data presented in the tables? Are the data in the tables all that exist regarding the toxicity of propargite? Has the toxicity of the inert ingredients been analyzed? What types of adjuvants or surfactants are normally added to facilitate application of each of the two formulations of propargite? Have toxicity tests of the adjuvants and surfactants been conducted? Please provide the data if such tests have been conducted. The effects of pesticide registrations on fish include the effects of inert ingredients, adjuvants, and surfactants, since these all end up in the water along with the active ingredient.

Which scientific databases were queried? Please provide all of the best scientific and commercial data available from all appropriate databases for not only the active ingredient of propargite but the inert ingredients, degradates, adjuvants and surfactants, as well as complex mixtures to which propargite formulations may be added.

10. p. 5. Environmental fate and transport. This paragraph states that it is unlikely that the degradates will be present in "significant amounts." What amounts of the degradates have been found both in the lab and in the field? What is known about the toxicity of the degradates? Please provide all data used for analysis of the effects of degradates.

This paragraph states that it is "expected" that runoff from rainfall and irrigation are the primary means of transport of parent propargite adsorbed to sediments. What is the basis for that expectation? What is the potential for spray drift? The paragraph also speaks to terrestrial field studies where propargite was not detectable in runoff within 2-3 weeks. If propargite primarily adheres to sediments, were sediments tested during that study? Was rainfall or irrigation based runoff tested sooner than 2-3 weeks after application? What about a 100-year storm event or other period events such as wind storms and burning? Please provide copies of all relevant studies.

Question 7 above asks for the times of year that propargite is generally applied. As this document identifies crops and acres planted by county, the precipitation ranges during general application seasons by county should also be presented. If the general irrigation levels for different crops are available, please provide them.

This paragraph states that propargite is not "expected" to bioaccumulate "significantly" in fish. Please define both quoted terms. Has propargite been found in fish tissue or organs where it has been tested? Please provide the referenced studies that found that a steady state was reached and that residues were eliminated after 14 days. Pages 7-11 of the Environmental Risk Assessment have not been provided. NOAA Fisheries has not received the Environmental Risk Assessment, hence we cannot comment on the fate and transport data. Please provide that document.

11. p. 7. Incidents. How are "incidents" defined?

12. p 7. Estimated and actual concentrations of propargite in water. NOAA Fisheries has not received the Environmental Risk Assessment, hence it cannot comment fully on surface water modeling for the estimated environmental concentrations (EECs). Please provide that document. It appears that propargite can be applied up to three times per year. Was the model run for three applications per year? The result of the GENEEC model yielded a peak surface water concentration of 69 ppm. This appears to be orders of magnitudes greater than the identified lowest observed effect concentrations (LOECs) in Table 2 of 14 and 28 ppb. Is this the worst case scenario? How are these exceedances explained and how are they associated with the ESA effects determination?

13. p. 8. first and second paragraphs. This paragraph is unclear and NOAA Fisheries was unable to follow it, since the underlying work was not provided. Given that propargite can be applied up to three times per year, why was the alfalfa scenario chosen, which has only one application per year? What levels of concern (LOCs) were used to generate the risk quotients? The Environmental Risk Assessment may provide some clarity with regard to this issue, as it is an extremely important piece of the risk equation.

What is the basis for equating the 1 hectare farm pond scenario to a salmon spawning stream? Were salmonid life history stages and the various biological requirement considered in this equation? What is meant by the statement "Larger streams would have lower concentrations because modeled inputs are "maximized" relative to the crops at the edge of the stream?"

Have the GENEEC or PRZM-EXAMS modeling efforts captured the highly variable salmonid habitat environmental factors (river systems, estuaries, nearshore marine environments) or biological requirements by life history stage? Pesticide monitoring data can be used to determine spatial and temporal patterns of pesticide transport. We suggest that you contact the Washington State Department of Agriculture (Bridget Moran (360/902-1636)), as they are developing a geospatially-referenced database which links land use and pesticide monitoring data to produce GIS-based maps and data spreadsheets. This information can be furnished upon request. This information should be correlated with information by species distribution and use across the ESUs in the State of Washington. Contact Marne Tyler, manager of the Salmon and Steelhead Habitat Inventory and Assessment Program (360-902-2582), and Loren Munday (360-902-2784) and Ann Blakely (360-902-2712), co-managers of the Salmonid Stock Inventory at the Washington State Department of Fish and Wildlife to obtain that information. Please provide all relevant information and statistics that you obtain. If such information exists for other states in the action area, please include it in your submission.

14. p. 8. last paragraph. Please show the work for the interpolation of degradation rates. What is the citation for the original degradation rates at pH 5, 7, and 9? Does the degradation of propargite adsorbed to organic matter and sediments occur at the same rates as described in water?

15. p. 9. first paragraph. While the general discussion about the ranges of pH in surface water is a good start, the Washington State Department of Ecology database should be used to provide county-

specific pH ranges, as was presented for the county-specific crop and acreage information. Does pH vary according to season? Is there any correspondence between the timing of application and pH? What is the correspondence of pH, if any, with timing of the different salmonid life history stages? Please provide this information in a readily useable format, such as a table.

16. p. 9. third paragraph. Without the Environmental Risk Assessment, it is difficult to compare persistence information. Is it difficult to determine whether at alkaline pH levels there are some concentrations of parent propargite remaining in the water? Please show the calculations that support the statement that "even a relatively brief exposure to strongly alkaline pH water could result in significant hydrolysis of propargite."

17. p. 10. third paragraph. Please show the work that supports the statement that the "Orestimba Creek residue of 20 ppb probably does represent very close to 'immediately after and adjacent to' propargite applications in this watershed, and this mimics OPP's modeled environmental concentrations in the agricultural areas." NOAA Fisheries is confused about this assertion, as the prior statement is clear that the NAWQA monitoring schedule is independent of pesticide use schedules. As a result, the NAWQA point values are most likely the lower bound estimates of the peak concentrations that may occur following pesticide application. Hence they may not be the most conservative representation of pesticide concentrations in surface waters following pesticide application. Has any specific post-application monitoring been conducted?

18. p. 10. fifth paragraph. What is the "standard endangered species criterion", and what is its basis? This paragraph addresses only acute effects. How do the findings from the modeling or the monitoring relate to chronic/sublethal effects?

19. p. 11. first paragraph. How and where are the changes in the RED documented? Does the label get changed? Do the old labels get pulled on products and new labels adhered? How does that process work?

20. p. 11.  
first bullet. What are Section 3 labels? And where do they occur?  
third bullet. What is the basis for the 50 foot no-spray buffer or 75 foot aerial application buffer? Has the assumption that there will be a reduction of runoff potential and "probably" a "significant" reduction in transport to water by drift been validated in the field? If yes, please provide the data.  
fourth bullet. Have the additional label directions regarding droplet size, wind speed and direction, application height and prohibition during temperature inversions been posted on labels? They do not appear on the labels included in this initiation package. Has the assumption of a reduction of drift into aquatic habitats been validated in the field? If yes, please provide the data.  
fifth bullet. How are "frequently flooded" and "significant rainfall" defined? Have numeric trigger frequencies and rainfall levels been established? What are the best management practices and where are they included?

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21. p. 11. General risk considerations. As described above, the substantive technical analyses for the "worst-case" acute risk scenario should be provided in order for NOAA Fisheries to make its determination under section 7 of the ESA. Does the basis for the finding of the acute risks not being high enough to expect population effects stem from no reported fish kills? Who documents and tracks fish kills?

22. p. 12. Existing protective measures. The RED indicated that as a result of section 7 consultations with the USFWS in the 1980s, that Reasonable and Prudent Alternatives were identified to avoid the likelihood of jeopardy and that Reasonable and Prudent Measures were identified to reduce the incidental take. This risk analysis document states that no specific protective measures for endangered and threatened species exist beyond generic statements on the current labels. The 1993 biological opinion drafted by the USFWS titled "Effects of 16 Vertebrate Control Agents on Threatened and Endangered Species (Part I)" required the adoption of a monitoring/enforcement program. What is the status of that program? Have pesticide monitoring data been collected and the effectiveness of recommended buffers determined?

Please provide a description of the proposed label changes, and a discussion of when, where, and how those changes will be implemented. To what extent is EPA able to assure that pesticide users will adhere to restrictions in county bulletins?

The RED states that "The Agency consulted with the U.S. Fish and Wildlife Service (FWS or Service) on the corn use of propargite as part of the corn cluster analysis in 1983 and on several agricultural uses of propargite in the "reinitiation" of the cluster assessments in 1988. The resulting Opinions found jeopardy to one amphibian species, eight fish species, and one invertebrate species. The Service proposed Reasonable and Prudent Alternatives (RPAs) to avoid the likelihood of jeopardizing the continued existence of these species. In addition, the Service had Reasonable and Prudent Measures (RPMs) to reduce incidental take of 22 fish and one aquatic invertebrate species. These consultations and the findings expressed in the Opinions, however, are based on old labels and application methods, less refined risk assessment procedures, and an older approach to consultation which is currently being revised through interagency collaboration." Were the labels changed as a result of those two consultations? How are the labels different? Have the RPAs been implemented? Have the RPMs been implemented? How are the earlier risk assessment procedures different from the 2002 Risk Analysis for propargite? How are the consultation approaches being revised?

23. p. 13. Listed salmon and steelhead ESUs and comparison with propargite use areas. The first paragraph states that Washington and Idaho do not have a mechanism to report and track pesticide use. The Washington State Department of Agriculture is developing a geospatial referenced, GIS-based, state-wide database which includes cropping patterns and pesticide use profiles. We recommend that you coordinate with Bridget Moran (360/902-1936) and retrieve the most current state-based information for this consultation. Please provide all retrieved data for Washington and all other states within the action area.

24. p. 14. second paragraph. Receipt of confidential business information (CBI) training would be useful for NOAA Fisheries in order to understand the specifics of sales information. While we recognize that sales information may not provide useful site-specific information due to limited sales representatives within a state, correlating sale, use and crop acreage data would provide a better understanding of past, present and potentially, future uses. Following the CBI training, we would not expect to retrieve the data, but would receive the data as EPA presented it.

25. p. 15 - 76. The information on the threatened and endangered species is a good start, however, the analysis should include more focus on information relevant to salmonid species within the 26 ESUs, their life history stages and timings and critical habitats, and the baseline conditions of the habitat. At present the information on acres and crop use is not very informative as there is no link to the fish and to modeled or monitored data.

26. p. 77. # 3. The buffers in California apply when the wind is blowing. What is the wind speed that triggers the buffers? Is wind direction a factor in buffer setting? Is wind speed ever high enough to prohibit aerial applications?

p. 78. #3. It is unclear why the "low use" of propargite in the state of Oregon triggered a "no effect" conclusion and a "low use" in California triggered a "not likely to adversely affects" conclusion. Please explain the reasons for the different conclusions.

#4. If there is no propargite use in salmon and steelhead areas in Idaho, what led to the conclusion of "not likely to adversely affect" (as opposed to "no effect") for the Snake River spring-summer chinook, the Snake River steelhead, and the Snake River sockeye?

#5. As mentioned above, NOAA Fisheries would like to see technical support for the assertion that the 50-foot ground and 75-foot aerial buffers are sufficient for most crop uses. Similarly, what is the technical basis for determining the sufficiency of the 100-yard buffer for mint, seed alfalfa, potatoes, and hops? Please provide this technical support.

#6. What is the technical basis for determining the sufficiency of the 100-yard buffer for the Upper Columbia River chinook and steelhead? Please provide this technical support.

27. p. 79. Table 42. The term "may affect (slightly)" is not used in the consultation regulations. Please revise this table to include only the regulatory determinations of "may effect" or "not likely to adversely affect," as applicable.

#### **Specific Comments for Molinate and Thiobencarb**

Please note that many of the above questions or comments relate to statements that also appear in the molinate and thiobencarb document. We have omitted them in the following section for the sake of brevity.

1. p.1. NMFS will assume that EPA's effects determination for these two chemicals is "may affect, not likely to adversely affect". If this is not EPA's determination, please advise us right away.
2. p. 3. Please provide support for the statement "In general, pesticides applied in terrestrial environments will not affect the plant material in the water that provides aquatic cover for listed fish." The pesticides at issue here are specifically registered to control aquatic plants. They are intended to control watergrasses and a few other species. How will these herbicides affect the aquatic plant base of the Sacramento and San Joaquin Rivers and the Delta? Salmonids use an estuarine form of watergrass, eelgrass, for forage areas and cover. Are there plant communities in the Sacramento and San Joaquin River systems that may be affected? Will the levels expected to reach San Francisco Bay have an effect on the eelgrass beds there or other aquatic plant communities? What do the efficacy trials for the use of these compounds tell us about their effect levels on different plant families?
3. p. 10. What does the following sentence mean, "The values for the formulated products are adjusted to reflect the percentage of active ingredient in these products."?
4. p. 10. The paragraph states, "It appears that the granular product has more toxicity than the technical material." This is followed by a section explaining that this observation could be due to intralaboratory variation. Could the potential increased toxicity be due to other materials in the granular formation which are commonly termed "inert ingredients" in the pesticide labeling system?
5. p. 16. A study by Finlayson and Faggella showed that the combined toxicity of molinate and thiobencarb is additive. How was this study factored into setting the EECs for the compounds? Please note that this question does not imply acceptance of the EEC method that was used. Please see our "general comments" in this attachment for the discussion of EEC methods.
6. p. 16. The State of California regulations are referenced in this section of the document. They are apparently responsible for the significant declines in the concentrations of these pesticides found in the Sacramento and San Joaquin River systems as compared to past conditions. How do these regulations relate to EPA's authorities under FIFRA and the registration process? What ability does EPA have to require the continued use of these retention periods if the State of California decided to loosen or eliminate the regulations? Where does the water that is discharged in an emergency go if it is not allowed to enter natural waters? Are the drains (e.g. the Colusa Basin drain) disconnected from the river system so that only regulated discharges occur?



